# Commonwealth of Kentucky Environmental and Public Protection Cabinet Department for Environmental Protection Division for Air Quality 803 Schankel Lane

803 Schenkel Lane Frankfort, Kentucky 40601 (502) 573-3382

### Draft

### AIR QUALITY PERMIT Issued under 401 KAR 52:020

Permittee Name: Roll Coater, Inc.

Mailing Address: 2604 River Road, Hawesville, KY 42348

Source Name: Roll Coater, Inc. Mailing Address: 2604 River Road

Hawesville, KY 42348

Source Location: 2604 River Road, Hawesville, KY 42348

Permit ID: V-07-004 Agency Interest #: 1619

**Activity ID: APE20040003** 

**Review Type:** Title V / Synthetic Minor, Operating

Source ID: 21-091-00020

**Regional Office:** Owensboro Regional Office

3032 Alvey Park Dr. W., Suite 700

Owensboro, KY 42303

(270) 687-7304

County: Hancock

**Application** 

Complete Date: March 2, 2005

Issuance Date: Revision Date: Expiration Date:

> John S. Lyons, Director Division for Air Quality

Revised 09/29/06

#### TABLE OF CONTENTS

SECTION	ISSUANCE	PAGE
A. PERMIT AUTHORIZATION	Renewal	1
B. EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS	Renewal	2
C. INSIGNIFICANT ACTIVITIES	Renewal	23
D. SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS	Renewal	24
E. SOURCE CONTROL EQUIPMENT REQUIREMENTS	Renewal	25
F. MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS	Renewal	26
G. GENERAL PROVISIONS	Renewal	29
H. ALTERNATE OPERATING SCENARIOS	Renewal	35
I. COMPLIANCE SCHEDULE	Renewal	41

	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-98-022	Initial Issuance		3/19/1999	11/10/1998	Initial Construction Permit
V-07-004	Renewal	APE20040003	3/2//2005		Permit Renewal

**Permit Number:** <u>V-07-004</u> **Page:** 1 of 41

#### **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Permit Number: V-07-004 Page: 2 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

#### 08 (08) Firetube Boilers (2)

**Description:** Boiler #1

Manufactured by First Thermal Systems, Inc.

Primary Fuel: Natural Gas Secondary Fuel: Propane

Maximum rated capacity: 16.75 MMBtu/hr Construction commenced: June, 1989

#### Boiler #2

Manufactured by First Thermal Systems, Inc.

Primary Fuel: Natural Gas Secondary Fuel: Propane

Maximum rated capacity: 16.75 MMBtu/hr Construction commenced: June, 1989

#### **APPLICABLE REGULATIONS:**

401 KAR 59:015, New indirect heat exchangers

Classification date: April 9, 1972 for affected facilities with a capacity of 250 MMBtu/hr or less.

40 CFR 60 Subpart Dc, Standards of performance for small industrial-commercial-institutional steam generating units, applies to each steam generating unit commenced after June 9, 1989 that has a maximum design heat input capacity between 10 MMBtu/hr and 100 MMBtu/hr. No records or reports are required for natural gas/propane fired industrial boiler (≤30 MMBtu/hr).

#### 1. Operating Limitations:

The usage rate of materials used in all affected facilities shall be limited so as not to exceed the emission limitations listed in Section B (2) below.

#### 2. Emission Limitations:

#### 401 KAR 59:015

- a. §4(2) limits visible emissions from each stack to less than 20% opacity except:
  - §4(2)(b). A maximum of 40% opacity shall be permissible for not more than 6 consecutive minutes in any 60 consecutive minutes during cleaning the firebox or blowing soot.
  - §4(2)(c). For emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.
- b. §4(1)(a) limits emissions of particulate matter to 0.42 pound per million BTU actual heat input.

Permit Number: V-07-004 Page: 3 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

c. §5(1)(a) limits emissions of sulfur dioxide to 1.82 pounds per million BTU actual heat input.

#### **Compliance Demonstration Method:**

EP 08 is assumed to be in compliance with the particulate matter, sulfur dioxide and opacity limits while burning natural gas or propane.

#### 3. Testing Requirements:

Testing shall be conducted at such times as may be required by the Cabinet in accordance with Regulation 401 KAR 59:005, Section 2(2) and 401 KAR 50:045, Section 4.

#### 4. **Specific Monitoring Requirements:**

The permittee shall monitor and maintain monthly records of natural gas in million cubic feet or propane in 1000 gallons used.

#### 5. **Specific Record Keeping Requirements:**

See Specific Monitoring Requirements above.

#### 6. **Specific Reporting Requirements:**

None

#### 7. Specific Control Equipment Operating Conditions:

None

Permit Number: V-07-004 Page: 4 of 41

# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### EP 10 (EU 1 through EU22) Coil Coating Line

EU 01 - 07	Paint Storage Tanks 101-107,
EU 08 - 09	Solvent Storage Tanks 108-109
EU 10 - 17	Lines from Paint Totes 111-118,
EU 18	Prime Coat Application Room,
EU 19a	Finish Coat Application Room #1
EU 19b	Finish Coat Application Room #2
EU 20	Prime Coat Drying Oven,
EU 21	Finish Coat Drying Oven.
EU 22	MEK Cleaning Operations in Coating Rooms

Control Device: Thermal oxidizer.

Natural gas fired with a heat input of 104 MMBtu/hr. Thermal oxidizer was tested on August 19, 2003.

Date commenced: 1989

#### **APPLICABLE REGULATIONS:**

401 KAR 60:005 and by incorporation, 40 CFR 60 Subpart TT, Standards of performance for metal coil surface coating, applicable to facilities commencing construction, modification, or reconstruction after January 5, 1981. These regulations apply to Emission Units 18, 19a, 19b, 20, and 21.

#### 1. **Operating Limitations:**

Usage rate of paints, thinners and cleaning solvents containing VOC shall be restricted so as not to exceed the emission limitations in Section B (2).

#### 2. <u>Emission Limitations:</u>

- (a) There is no individual limit on VOCs for the affected facilities. Emission limitation is source wide, as given in Section D of this permit.
- (b) The permittee must comply with the emission limitations of 40 CFR 60.462 as follows:

#### §60.462 Standards for volatile organic compounds.

On and after the date on which §60.8 requires a performance test to be completed, each owner or operator subject to this subpart shall not cause to be discharged into the atmosphere more than:

- (1) 0.14 kg VOC/*l* of coating solids applied for each calendar month for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or
- (2) 10 percent of the VOC's applied for each calendar month (90 percent emission reduction) for each affected facility that continuously uses an emission control device(s) operated at the most recently demonstrated overall efficiency; or

**Permit Number:** <u>V-07-004</u> **Page:** 5 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(3) A value between 0.14 (or a 90-percent emission reduction) and 0.28 kg VOC/*l* of coating solids applied for each calendar month for each affected facility that intermittently uses an emission control device operated at the most recently demonstrated overall efficiency.

#### 3. <u>Testing Requirements:</u>

The permittee must comply with the performance test and compliance provisions of 40 CFR 60.463 as follows:

#### §60.463 Performance test and compliance provisions.

- (a) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8(a) and thereafter a performance test for each calendar month for each affected facility according to the procedures in this section.
- (b) The permittee shall use the following procedures for determining monthly volume-weighted average emissions of VOC's in kg/l of coating solids applied.
  - (1) The permitee shall use the following procedures for each affected facility that continuously uses a capture system and a thermal oxidizer to comply with the emission limit specified in the Section 2(b)(1),(2) or (3).
    - (i) Determine the overall reduction efficiency (R) for the capture system and control device. For the initial performance test, the overall reduction efficiency (R) shall be determined as prescribed in paragraphs (b)(1)(i) (A), (B), and (C) of this section. In subsequent months, the permittee may use the most recently determined overall reduction efficiency (R) for the performance test, providing thermal oxidizer and capture system operating conditions have not changed. The above mentioned procedure shall be repeated when directed by the Division or when the permittee elects to operate the thermal oxidizer or capture system at conditions different from the initial performance test.
      - (A) Determine the fraction (F) of total VOC's emitted by an affected facility that enters the control device using the following equation:

$$F = \frac{\sum_{i=1}^{l} C_{bi} Q_{bi}}{\sum_{i=1}^{l} C_{bi} Q_{bi} + \sum_{i=1}^{p} C_{fi} Q_{fi}}$$
 Equation 1

Where:

*l* is the number of gas streams entering the control device, and p is the number of gas streams emitted directly to the atmosphere. C<sub>b</sub>= the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

Permit Number: V-07-004 Page: 6 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

C<sub>f</sub>= the VOC concentration in each gas steam emitted directly to the atmosphere (parts per million by volume, as carbon).

Q<sub>b</sub>= the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

Q<sub>f</sub>= the volumetric flow rate of each gas steam emitted directly to the atmosphere (dry standard cubic meters per hour).

F= the proportion of total VOC's emitted by an affected facility that enters the control device (fraction).

(B) Determine the destruction efficiency of the control device (E) using values of the volumetric flow rate of each of the gas streams and the VOC content (as carbon) of each of the gas streams in and out of the device by the following equation:

$$E = \frac{\sum_{i=1}^{n} Q_{bi} C_{bi} - \sum_{j=1}^{m} Q_{aj} C_{aj}}{\sum_{i=1}^{n} Q_{bi} C_{bi}}$$
 Equation 2

Where:

n is the number of gas streams entering the control device, and m is the number of gas streams leaving the control device and entering the atmosphere.

 $C_a$ = the VOC concentration in each gas stream leaving the control device and entering the atmosphere (parts per million by volume, as carbon).

C<sub>b</sub>= the VOC concentration in each gas stream entering the control device (parts per million by volume, as carbon).

E= VOC destruction efficiency of the control device (fraction).

 $Q_a$ = the volumetric flow rate of each gas stream leaving the control device and entering the atmosphere (dry standard cubic meters per hour).

Q<sub>b</sub>= the volumetric flow rate of each gas stream entering the control device (dry standard cubic meters per hour).

The permittee shall construct the VOC emission reduction system so that all volumetric flow rates and total VOC emissions can be accurately determined by the applicable test methods and procedures specified in §60.466. The permittee of the affected facility shall construct a temporary enclosure around the coating applicator and flash off area during the performance test for the purpose of evaluating the capture efficiency of the system. The enclosure must be maintained at a negative pressure to ensure that all VOC emissions are measurable. If a permanent enclosure exists in the affected facility prior to the performance test and the Division is satisfied that the

**Permit Number:** <u>V-07-004</u> **Page:** 7 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

enclosure is adequately containing VOC emissions, no additional enclosure is required for the performance test.

(C) Determine overall reduction efficiency (R) using the following equation:

$$R = EF$$
 Equation 3

If the overall reduction efficiency (R) is equal to or greater than 0.90, the affected facility is in compliance and no further computations are necessary. If the overall reduction efficiency (R) is less than 0.90, the average total VOC emissions to the atmosphere per unit volume of coating solids applied (N) shall be computed as follows.

- (ii) Calculate the volume-weighted average of the total mass of VOC's per unit volume of coating solids applied (G) during each calendar month for each affected facility using equations in paragraphs (c)(1)(i) (A), (B), and (C) of §60.463.
- (iii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month by the following equation:

$$N = G(1 - R)$$
 Equation 4

- (iv) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to 0.14 kg/l of coating solids applied, the affected facility is in compliance. Each monthly calculation is a performance test.
- (3) The permittee shall use the following procedures for each affected facility that intermittently uses a capture system and a control device to comply with the emission limit specified in the Section 2(b).
  - (i) Calculate the total volume of coating solids applied without the control device in operation  $(L_{sn})$  during each calendar month for each affected facility using the following equation:

$$L_{sn} = \sum_{i=1}^{n} V_{si} L_{ci}$$
 Equation 5

Where:

n is the number of coatings used during the calendar month without the control device in operation.

L<sub>c</sub>= the volume of each coating consumed, as received (liters).

L<sub>s</sub>= the volume of coating solids consumed (liters).

V<sub>s</sub>= the proportion of solids in each coating, as received (fraction by volume).

**Permit Number:** <u>V-07-004</u> **Page:** 8 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(ii) Calculate the total volume of coating solids applied with the control device in operation ( $L_{sc}$ ) during each calendar month for each affected facility using the following equation:

$$L_{sc} = \sum_{i=1}^{n} V_{si} L_{ci}$$
 Equation 6

Where:

n is the number of coatings used during the calendar month with the control device in operation.

L<sub>c</sub>= the volume of each coating consumed, as received (liters).

V<sub>s</sub>= the proportion of solids in each coating, as received (fraction by volume).

(iii) Calculate the mass of VOC's used without the control device in operation  $(M_{on}+M_{dn})$  during each calendar month for each affected facility using the following equation:

$$M_{on} + M_{dn} = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{j=1}^{m} L_{dj} D_{dj}$$
 Equation 7

Where:

n is the number of different coatings used without the control device in operation during the calendar month

m is the number of different VOC-solvents added to coatings used without the control device in operation during the calendar month.

D<sub>c</sub>= density of each coating, as received (kilograms per liter).

D<sub>d</sub>= density of each VOC-solvent added to coatings (kilograms per liter).

L<sub>c</sub>= the volume of each coating consumed, as received (liters).

L<sub>d</sub>= the volume of each VOC-solvent added to coatings (liters).

 $M_d$ = the mass of VOC-solvent added to coatings (kilograms).

M<sub>o</sub>= the mass of VOC's in coatings consumed, as received (kilograms).

W<sub>o</sub>= the proportion of VOC's in each coating, as received (fraction by weight).

(iv) Calculate the volume-weighted average of the total mass of VOC's consumed per unit volume of coating solids applied without the control device in operation  $(G_n)$  during each calendar month for each affected facility using the following equation:

$$G_n = \frac{M_{on} + M_{dn}}{L_{sn}}$$
 Equation 8

**Permit Number:** <u>V-07-004</u> **Page:** 9 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(v) Calculate the mass of VOC's used with the control device in operation  $(M_{oc}+M_{dc})$  during each calendar month for each affected facility using the following equation:

$$M_{oc} + M_{dc} = \sum_{i=1}^{n} L_{ci} D_{ci} W_{oi} + \sum_{i=1}^{m} L_{dj} D_{dj}$$
 Equation 9

#### Where:

n is the number of different coatings used with the control device in operation during the calendar month, and

m is the number of different VOC-solvents added to coatings used with the control device in operation during the calendar month.

L<sub>c</sub>= the volume of each coating consumed, as received (liters).

L<sub>d</sub>= the volume of each VOC-solvent added to coatings (liters).

D<sub>c</sub>= density of each coating, as received (kilograms per liter).

D<sub>d</sub>= density of each VOC-solvent added to coatings (kilograms per liter).

M<sub>d</sub>= the mass of VOC-solvent added to coatings (kilograms).

 $M_0$ = the mass of VOC's in coatings consumed, as received (kilograms).

W<sub>o</sub>= the proportion of VOC's in each coating, as received (fraction by weight).

(vi) Calculate the volume-weighted average of the total mass of VOC's used per unit volume of coating solids applied with the control device in operation (G<sub>c</sub>) during each calendar month for each affected facility using the following equation:

$$G = \frac{M_{oc} + M_{dc}}{L_{sn}}$$
 Equation 10

- (vii) Determine the overall reduction efficiency (R) for the capture system and control device using the procedures in paragraphs (b)(1)(i) (A), (B), and (C) of this section or paragraphs (c)(3) (i), (ii), and (iii) of §60.463, whichever is applicable.
- (viii) Calculate the volume-weighted average of VOC emissions to the atmosphere (N) during each calendar month for each affected facility using the following equation:

$$N = \frac{G_n L_{sn} + G_c L_{sc} (1 - R)}{L_{sn} + L_{sc}}$$
 Equation 11

(ix) Calculate the emission limit(s) for each calendar month for each affected facility using the following equation:

Permit Number: V-07-004 **Page:** 10 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$S = \frac{0.28L_{sn} + 0.1G_cL_{sc}}{L_{ns} + L_{sc}}$$
or
$$\frac{0.28L_{sn} + 0.14L_{sc}}{L_{ns} + L_{sc}}$$
Equation 1

whichever is greater.

(x) If the volume-weighted average mass of VOC's emitted to the atmosphere for each calendar month (N) is less than or equal to the calculated emission limit (S) for the calendar month, the affected facility is in compliance. Each monthly calculation is a performance test.

Equation 12

Roll Coater completed a performance a test of its coil coating operations capture system and thermal oxidizer during the week of August 18, 2003. EPA Methods 1, 2, 4, 25A and 204 were utilized in the performance test. The test results met the requirements of VOC emissions. The next compliance test shall be performed no later than 5 years from the date of last test (August 19, 2003).

#### **Specific Monitoring Requirements:** 4.

The permittee must comply with the monitoring requirements of 40 CFR 60.464 as follows:

#### § 60.464 Monitoring of emissions and operations.

- (a) Where compliance with the numerical limit specified in the Section 2(b)(1), (2) or (3) is achieved through the use VOC-content coatings in conjunction with emission control devices, the permittee shall compute and record the average VOC content of coatings applied during each calendar month for each affected facility, according to the equations provided in the Section 3, Testing Requirements.
- (b) Where compliance with the limit specified in the Section 2(b)(1),(2) or (3) is achieved through the intermittent use of emission control devices, the permittee shall compute and record for each affected facility the average VOC content of coatings applied during each calendar month according to the equations provided in the Section 3, Testing Requirements.
- (c) *Thermal oxidizer*. The permittee shall install, calibrate, operate, and maintain a device that continuously records the combustion temperature of any effluent gases incinerated to achieve compliance with the Section 2(b)(1),(2) or (3). This device shall have an accuracy of  $\pm 2.5$  °C. or  $\pm 0.75$  percent of the temperature being measured expressed in degrees Celsius, whichever is greater. The permittee shall also record all periods (during actual coating operations) in excess of 3 hours during which the average temperature in any thermal incinerator used to

Permit Number: V-07-004 Page: 11 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

control emissions from an affected facility remains more than 28 °C (50 °F) below the temperature at which compliance with the Section 2(b)(1),(2) or (3) was demonstrated during the most recent measurement of incinerator efficiency required by §60.8. The records required by §60.7 shall identify each such occurrence and its duration.

#### 8. Specific Record keeping Requirements:

§60.465(e). The permittee shall maintain at the source, for a period of at least 2 years, records of all data and calculations used to determine monthly VOC emissions from each affected facility and to determine the monthly emission limit, where applicable. Where compliance is achieved through the use of thermal oxidizer, the permittee shall maintain, at the source, daily records of the incinerator combustion temperature.

#### 9. Specific Reporting Requirements:

#### §60.465 Reporting and recordkeeping requirements.

- (a) Following the initial performance test, the permittee shall identify, record, and submit a written report to the Division every calendar quarter of each instance in which the volume-weighted average of the local mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) is greater than the limit specified the Section 2, Emission Limitations. If no such instances have occurred during a particular quarter, a report stating this shall be submitted to the Division semiannually.
- (b) The permittee shall also submit reports at the frequency specified in §60.7(c) when the incinerator temperature drops as defined under the Section 4(c). If no such periods occur, the owner or operator shall state this in the report.
  - (1) Reports shall be mailed to the following addresses:

Division for Air Quality
Owensboro Regional Office
3032 Alvey Park Dr. W., Suite 700
Owensboro, KY 42303
Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

(2) The permittee shall notify the Division's Owensboro Regional Office within five (5) days following any change in the control device and capture system operating conditions from the conditions existing during the most recently determined overall reduction efficiency that reduce the overall reduction efficiency.

#### 10. Specific Control Equipment Operating Conditions:

See NESHAP requirements for EP 10.

**Permit Number:** <u>V-07-004</u> **Page:** 12 of 41

# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### **NESHAP Requirements**

#### **EP 10** Coil Coating Line

EU 18	Prime Coat Application Room,
EU 19a	Finish Coat Application Room #1
EU 19b	Finish Coat Application Room #2
EU 20	Prime Coat Drying Oven,
EU 21	Finish Coat Drying Oven.

Control Device: Thermal oxidizer.

Natural gas fired with a heat input of 104 MMBtu/hr.

Thermal oxidizer was tested on August 19, 2003.

Date commenced: 1989

#### **Applicable Regulation:**

401 KAR 63:002 and by incorporation, 40 CFR 63 Subpart SSSS, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil. The provisions of this subpart apply to each facility that is a major source of HAP, at which a coil coating line is operated. *Coil coating line* means a process and the collection of equipment used to apply an organic coating to the surface of metal coil. A coil coating line includes a web unwind or feed section, a series of one or more work stations, any associated curing oven, wet section, and quench station. A coil coating line does not include ancillary operations such as mixing/thinning, cleaning, wastewater treatment, and storage of coating material. Roll Coater is an existing affected source because the construction of the source commenced before July 18, 2000.

#### 1. **Operating Limitations**

#### §63.5121 Operating limits

(a) You must meet the applicable operating limits specified in Table 1 to this subpart. You must establish the operating limits during the performance test. You must meet the operating limits at all times after you establish them.

Table 1 to Subpart SSSS of Part 63. Operating limits for thermal oxidizer and capture system

Control device	Operating limit	Demonstrate continuous compliance with the operating limit by
1. thermal oxidizer	a. the average combustion temperature in any 3-hour period must not fall below the combustion temperature limit established according to §63.5160(d)(3)(i).	i. collecting the combustion temperature data according to §63.5150(a)(3); ii. reducing the data to 3-hour block averages; and iii. maintaining the 3-hour average combustion temperature at or above the temperature limit.
2. emission capture system	develop a monitoring plan that identifies operating parameter to be monitored and specifies operating limits according to §63.5150(a)(4).	conducting monitoring according to the plan §63.5150(a)(4).

Permit Number: V-07-004 Page: 13 of 41

# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 2. <u>Emission Limitations</u>

#### §63.5120 Emission standards:

- (a) Each coil coating affected source must limit organic HAP emissions to the level specified in the following paragraph:
  - (1) No more than 2 percent of the organic HAP applied for each month during each 12 month compliance period (98 percent reduction); or
  - (2) No more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period.
- (b) You must demonstrate compliance with one of these standards by following the applicable procedures in §63.5170.

#### 3. Testing/Compliance Demonstration Requirements

### §63.5160 Performance tests Table 1 to § 63.5160-Required Performance Testing

If you control HAP on your coil coating line by:	You must:
Using a capture system and add-on control device	Conduct a performance test for each capture and control system to determine: (1) the destruction or removal efficiency of each control device according to (a) and the capture efficiency of each capture system according to (b) of this section

- (a) Thermal oxidizer destruction efficiency. You must conduct a performance test to establish the destruction efficiency of the thermal oxidizer according to the following methods and procedures:
  - (1) An initial performance test to establish the destruction efficiency of the control device must be conducted such that thermal oxidizer inlet and outlet testing is conducted simultaneously. To establish the outlet organic HAP concentration achieved by the oxidizer, only oxidizer outlet testing must be conducted. The data must be reduced in accordance with the test methods and procedures in the following paragraphs:
    - (i) Method 1 or 1A of 40 CFR part 60, appendix A, is used for sample and velocity traverses to determine sampling locations.
    - (ii) Method 2, 2A, 2C, 2D, 2F, or 2G of 40 CFR part 60, appendix A, is used to determine gas volumetric flow rate.
    - (iii) Method 3, 3A, or 3B of 40 CFR part 60, appendix A, used for gas analysis to determine dry molecular weight. You may also use as an alternative to Method 3B, the manual method for measuring the oxygen, carbon dioxide, and carbon monoxide content of exhaust gas, ANSI/ASME PTC 19.10–1981, "Flue and Exhaust Gas Analyses" (incorporated by reference, see §63.14).

**Permit Number:** <u>V-07-004</u> **Page:** 14 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

(iv) Method 4 of 40 CFR part 60, appendix A, is used to determine stack gas moisture.

- (v) Methods for determining gas volumetric flow rate, dry molecular weight, and stack gas moisture must be performed, as applicable, during each test run, as specified in paragraph (a)(1)(vii) of this
  - (vi)Method 25 or 25A of 40 CFR part 60, appendix A, is used to determine total gaseous non-methane organic matter concentration. Use the same test method for both the inlet and outlet measurements, which must be conducted simultaneously. You must submit notification of the intended test method to the Division for approval along with notification of the performance test.
- (vii) Each performance test must consist of three separate runs; each run must be conducted for at least 1 hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining volatile organic matter concentrations and mass flow rates, the average of the results of all runs will apply.
- (viii) If you are determining the thermal oxidizer destruction efficiency, for each run, determine the volatile organic matter mass flow rates using Equation 1 of this section:

$$M_f = Q_{sd} C_c(12)(0.0416)(10^{-6})$$
 Equation 1

Where:

M<sub>f</sub>=total organic volatile matter mass flow rate, kg/per hour (h).

C<sub>c</sub>=concentration of organic compounds as carbon in the vent gas, as determined by Method 25 or Method 25A, ppmv, dry basis.

 $Q_{sd}$ =volumetric flow rate of gases entering or exiting the control device, as determined by Method 2, 2A, 2C, 2D, 2F, or 2G, dry standard cubic meters (dscm)/h.

0.0416=conversion factor for molar volume, kg-moles per cubic meter (mol/m $^3$ ) (@ 293 Kelvin (K) and 760 millimeters of mercury (mmHg)).

(ix) For each run, determine the control device destruction efficiency, DRE, using Equation 2 of this section:

$$DRE = \frac{M_{fi} - M_{fo}}{M_{fi}} \times 100$$
 Equation 2

Where:

DRE=organic emissions destruction or removal efficiency of the addon control device, percent.

M<sub>fi</sub>=organic volatile matter mass flow rate at the inlet to the control device, kg/h.

**Permit Number:** <u>V-07-004</u> **Page:** 15 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

M<sub>fo</sub>=organic volatile matter mass flow rate at the outlet of the control device, kg/h.

- (x) The thermal oxidizer DRE is determined as the average of the efficiencies determined in the three test runs and calculated in Equation 2 of this section.
- (2) You must record such process information as may be necessary to determine the conditions in existence at the time of the performance test. Operations during periods of start-up, shutdown, and malfunction will not constitute representative conditions for the purpose of a performance test.
- (3) *Operating limits*. You must establish the applicable operating limits. These operating limits apply to each capture system and to each thermal oxidizer. Establish the operating limits according to the following paragraph:
  - (A) During the performance test, you must monitor and record the combustion temperature at least once every 15 minutes during each of the three test runs. You must monitor the temperature in the firebox of the thermal oxidizer or immediately downstream of the firebox before any substantial heat exchange occurs.
  - (B) Use the data collected during the performance test to calculate and record the average combustion temperature maintained during the performance test. This average combustion temperature is the minimum operating limit for your thermal oxidizer.
- (b) Capture efficiency. You must determine capture efficiency using the procedures in the following paragraphs:
  - (1) For an enclosure that meets the criteria for a PTE, you may assume it achieves 100 percent capture efficiency. You must confirm that your capture system is a PTE by demonstrating that it meets the requirements of section 6 of EPA Method 204 of 40 CFR part 51, appendix M (or an EPA approved alternative method), and that all exhaust gases from the enclosure are delivered to a control device.
  - (2) You may determine capture efficiency, CE, according to the protocols for testing with temporary total enclosures that are specified in Method 204A through F of 40 CFR part 51, appendix M. You may exclude never-controlled work stations from such capture efficiency determinations.
  - (3) As an alternative to the procedures specified in paragraphs (b)(1) and (2) of this section, if you are required to conduct a capture efficiency test, you may use any capture efficiency protocol and test methods that satisfy the criteria of either the Data Quality Objective or the Lower Confidence Limit approach as described in appendix A to subpart KK of this part. You may exclude never-controlled work stations from such capture efficiency determinations.

Permit Number: V-07-004 Page: 16 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Roll Coater completed a performance test of its coil coating operations capture system and thermal oxidizer during the week of August 18, 2003. EPA Methods 1, 2, 4, 25A and 204 were utilized in the performance test. The test results met the allowable VOC emissions limit required by 40 CFR 60.462(a)(3).

The Division received a waiver request from Roll Coater for performing a compliance test under Subpart SSSS. The Division agreed with the source that the August 2003 test fulfilled the performance testing requirements under Subpart SSSS. DRE and capture efficiency test results can be utilized for the calculation of compliance demonstration method for HAP emissions under Subpart SSSS. The next compliance test shall be performed no later than 5 years from the date of last test (August 19, 2003).

#### §63.5170 Compliance Demonstration with the standards

You must include all coating materials (as defined in §63.5110) used in the affected source when determining compliance with the applicable emission limit in §63.5120. To make this determination, you must use at least one of the four compliance options listed in Table 1 of this section. You may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. You may use different compliance options for different coil coating lines, or at different times on the same line. However, you may not use different compliance options at the same time on the same coil coating line. If you switch between compliance options for any coil coating line or group of lines, you must document this switch as required by §63.5190(a), and you must report it in the next semiannual compliance report required in §63.5180.

Table 1 to §63.5170- Compliance Demonstration Requirements Index

If you choose to demonstrate compliance by:	Then you must demonstrate that:
Use of a capture system and control device	Overall organic HAP control efficiency is at least 98 percent on a monthly basis for individual or groups of coil coating lines; or overall organic HAP control efficiency is at least 98 percent during initial performance test and operating limits are achieved continuously for individual coil coating lines.
Use of a combination of compliant coatings and control devices and maintaining an acceptable equivalent emission rate	Average equivalent emission rate does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly.
3. Use of "as purchased" compliant coatings	a. Each coating material used during the 12-month compliance period does not exceed 0.046 kg HAP per liter solids, as purchased. See Section H.
4. Use of "as applied" compliant coatings	a. Each coating material used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly; or
	b. Average of all coating materials used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. See Section H

Capture and control to reduce emissions to no more than the allowable limit. If the affected source uses one compliance procedure to limit organic HAP emissions to the level specified in §63.5120(a)(1) or (2) and has only always-controlled work stations, then you must demonstrate compliance with the provisions of the following paragraph when emissions are controlled by one or more oxidizers.

**Permit Number:** <u>V-07-004</u> **Page:** 17 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

*Use of oxidation to demonstrate compliance*. If you use one or more oxidizers to control emissions from always controlled work stations, you must follow the following procedures:

- (1) Continuous monitoring of capture system and control device operating parameters. Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters as specified in paragraphs (1)(i) through (xi) of this section:
  - (i) Determine the oxidizer destruction efficiency, DRE, using the procedure in the Section Testing/Compliance Demonstration Requirements.
  - (ii) Whenever a work station is operated, continuously monitor the operating parameter established in accordance with §63.5150(a)(3).
  - (iii) Determine the capture system capture efficiency, CE, for each work station in accordance with §63.5160(e).
  - (iv) Whenever a work station is operated, continuously monitor the operating parameter established in accordance with §63.5150(a)(4).
  - (v) Calculate the overall organic HAP control efficiency, R, achieved using Equation 3 of this section.

$$R = 100 \times \frac{\sum_{A=1}^{w} \left[ (DRE_k CE_A) \left\{ \sum_{i=1}^{p} M_{Ai} C_{vi} + \sum_{j=1}^{q} M_{Aj} \right\} \right]}{\sum_{i=1}^{p} M_i C_{vi} + \sum_{j=1}^{q} M_j}$$
 Equation 3

Where:

R=overall organic HAP control efficiency, percent.

DRE<sub>k</sub>=organic volatile matter destruction or removal efficiency of control device, k, percent.

CE<sub>A</sub>=organic volatile matter capture efficiency of the capture system for work station, A, percent.

 $M_{Ai}$ =mass of coating material, i, applied on work station, A, in a month, kg.

 $C_{vi}$ =volatile matter content of coating material, i, expressed as a weight fraction, kg/kg.

 $M_{Aj}$ =mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (including  $H_2O$ ), j, applied on work station, A, in a month, kg.

M<sub>i</sub>=mass of coating material, i, applied in a month, kg.

M<sub>j</sub>=mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material (excluding H<sub>2</sub>O), j, applied in a month, kg. w=number of always-controlled work stations in the facility.

p=number of different coating materials applied in a month.

q=number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

**Permit Number:** <u>V-07-004</u> **Page:** 18 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (vi) If demonstrating compliance with the organic HAP emission rate based on solids applied, measure the mass of each coating material applied on each work station during the month.
- (vii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the organic HAP content of each coating material applied during the month following the procedure in §63.5160(b).
- (viii) If demonstrating compliance with the organic HAP emission rate based on solids applied, determine the solids content of each coating material applied during the month following the procedure in §63.5160(c).
- (ix) Calculate the organic HAP emitted during the month, He, for each month:
   (A) For each work station and its associated oxidizer, use Equation 4 of this section.

$$H_{e} = \sum_{A=1}^{w} \left[ \left\{ 1 - DRE_{k}CE_{A} \right\} \sum_{i=1}^{p} \left\{ C_{hi}M_{Ai} + \sum_{j=1}^{q} C_{hij}M_{Aij} \right\} \right]$$
 Equation 4

Where:

H<sub>e</sub>=total monthly organic HAP emitted, kg.

DRE<sub>k</sub>=organic volatile matter destruction or removal efficiency of control device, k, percent.

CE<sub>A</sub>=organic volatile matter capture efficiency of the capture system for work station, A, percent.

C<sub>hi</sub>=organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

M<sub>Ai</sub>=mass of coating material, i, applied on work station, A, in a month, kg.

C<sub>hij</sub>=organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

M<sub>Aij</sub>=mass of solvent, thinner, reducer, diluent, or other non-solids-containing coating material, j, added to solids-containing coating material, i, applied on work station, A, in a month, kg.

w=number of always-controlled work stations in the facility.

p=number of different coating materials applied in a month.

q=number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

- (B) For periods when the oxidizer has not operated within its established operating limit, the control device efficiency is determined to be zero.
- (x) Organic HAP emission rate based on solids applied for the 12-month compliance period, L <sub>ANNUAL</sub>. If demonstrating compliance with the organic HAP emission rate based on solids applied for the 12-month compliance period, calculate the organic HAP emission rate based on solids applied, L<sub>ANNUAL</sub>, for the 12-month compliance period using Equation 6 of this section.

Permit Number: V-07-004 Page: 19 of 41

# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

$$L_{ANNUAL} = \frac{\sum_{y=1}^{12} H_e}{\sum_{y=1}^{12} \left[ \sum_{i=1}^{p} C_{si} M_i \right]}$$
 Equation 5

#### Where:

L<sub>ANNUAL</sub>= mass organic HAP emitted per volume of solids applied for the 12-month compliance period, kg/liter.

H<sub>e</sub>= total monthly organic HAP emitted, kg.

C<sub>si</sub>= solids content of coating material, i, expressed as liter of solids/kg of material.

M<sub>i</sub>= mass of coating material, i, applied in a month, kg.

y = identifier for months.

p = number of different coating materials applied in a month

- (xi) Compare actual performance to performance required by compliance option. The affected source is in compliance with §63.5120(a) if each oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in §63.5150(a)(3) for each 3-hour period, and each capture system operating parameter average value is greater than or less than (as appropriate) the operating parameter value established in §63.5150(a)(4) for each 3-hour period; and the requirement in either (A) or (B) of the following paragraphs is met.
  - (A) The overall organic HAP control efficiency, R, is 98 percent or greater for each; or
  - (B) The organic HAP emission rate based on solids applied,  $L_{\rm ANNUAL}$ , is 0.046 kg organic HAP per liter solids applied or less for the 12-month compliance period.

#### 4. <u>Specific Monitoring Requirements</u> §63.5150 Control device monitoring requirements.

- (a) To demonstrate continuing compliance with the standards, you must monitor and inspect each capture system and each thermal oxidizer following the date on which the initial performance test of the capture system and control device is completed.
  - (1) *Temperature monitoring of oxidizers*. To demonstrate continuous compliance through monitoring of an oxidizer operating parameter, you must comply with the following paragraphs:
    - (i) Install, calibrate, maintain, and operate temperature monitoring equipment according to manufacturer's specifications. The calibration of the chart recorder, data logger, or temperature indicator must be verified every 3

**Permit Number:** <u>V-07-004</u> **Page:** 20 of 41

# SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

months; or the chart recorder, data logger, or temperature indicator must be replaced. You must replace the equipment either if you choose not to perform the calibration, or if the equipment cannot be calibrated properly. Each temperature monitoring device must be equipped with a continuous recorder. The device must have an accuracy of  $\pm 1$  percent of the temperature being monitored in degrees Celsius, or  $\pm 1$  °Celsius, whichever is greater.

- (ii) For an oxidizer, to demonstrate continuous compliance with the operating limit established, you must install the thermocouple or temperature sensor in the combustion chamber at a location in the combustion zone.
- (2) Capture system monitoring. You must develop a capture system monitoring plan containing the information specified in the following paragraphs. You must make the monitoring plan available for inspection by the permitting authority upon request.
  - (i) The monitoring plan must identify the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained, explain why this parameter is appropriate for demonstrating ongoing compliance, and identify the specific monitoring procedures.
  - (ii) The plan also must specify operating limits at the capture system operating parameter value, or range of values, that demonstrates compliance with the standards in §63.5120. The operating limits must represent the conditions indicative of proper operation and maintenance of the capture system.
  - (iii) You must conduct monitoring in accordance with the plan.
- (b) Any deviation from the required operating parameters, unless otherwise excused, will be considered a deviation from the operating limit.

#### 5. **Specific Recordkeeping Requirements**

#### §63.5190 Record keeping

- (a) You must maintain the records specified in the following paragraphs:
  - (1) Records of the coating lines on which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.
  - (2) All measurements needed to demonstrate compliance including:
    - (ii) Control device and capture system operating parameter data.
    - (iii) Organic HAP content data.
    - (iv) Volatile matter and solids content data.
    - (v) Overall control efficiency determination or alternative outlet HAP concentration using capture efficiency tests and control device destruction efficiency tests.
    - (vi) Material usage, HAP usage, volatile matter usage, and solids usage and compliance demonstrations using these data.

Permit Number: V-07-004 Page: 21 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

#### 6. **Specific Reporting Requirements**

#### §63.5180 Reports requirements

- (a) You must submit a Notification of Performance Test as specified in §§63.7 and 63.9(e) if you are complying with the emission standard using a control device. This notification and the site-specific test plan required under §63.7(c)(2) must identify the operating parameter to be monitored to ensure that the capture efficiency measured during the performance test is maintained. You may consider the operating parameter identified in the site-specific test plan to be approved unless explicitly disapproved, or unless comments received from the Division require monitoring of an alternate parameter.
- (b) You must submit a Notification of Compliance Status as specified in Sec. 63.9(h). You must submit the Notification of Compliance Status no later than 30 calendar days following the end of the initial 12-month compliance period described in Sec. 63.5130.
- (c) You must submit performance test reports as specified in Sec. 63.10(d)(2) if you are using a control device to comply with the emission standards and you have not obtained a waiver from the performance test requirement.
- (d) You must submit start-up, shutdown, and malfunction reports as specified in Sec. 63.10(d)(5) if you use a control device to comply with this subpart.
- (e) You must submit semi-annual compliance reports containing the information specified in the following paragraphs:
  - (1) Compliance report dates.
    - (i) The first semiannual reporting period begins 1 day after the end of the initial compliance period and ends 6 months later.
    - (ii) The first semiannual compliance report must cover the first semiannual reporting period and be postmarked or delivered no later than 30 days after the reporting period ends.
    - (iii) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
    - (iv) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
  - (2) The semi-annual compliance report must contain the following information:
    - (i) Company name and address.
    - (ii) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.

Permit Number: V-07-004 Page: 22 of 41

### SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

- (iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
- (iv) Identification of the compliance option or options specified in Table 1 to Sec. 63.5170 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning dates you used each option.
- (v) A statement that there were no deviations from the standards during the reporting period, and that no CEMS were inoperative, inactive, malfunctioning, out-of-control, repaired, or adjusted.
- (f) You must submit, for each deviation occurring at an affected source, the semi-annual compliance report containing the information in paragraphs (e)(2)(i) through (iv) of this section and the information in the following paragraphs:
  - (1) The total operating time of each affected source during the reporting period.
  - (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable) as applicable, and the corrective action taken.
  - (3) Information on the number, duration, and cause for monitor downtime incidents (including unknown cause other than downtime associated with zero and span and other daily calibration checks, if applicable).

#### 7. <u>Alternate Operating Scenarios:</u>

Compliance demonstration method with the HAP emission standard by using "as purchased" compliant coatings or "as applied" compliant coatings; see Section H.

**Permit Number:** <u>V-07-004</u> **Page:** 23 of 41

#### **SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

1.	<u>Description</u> EP 01 Alkaline Spray Wash	Generally Applicable Regulation 401 KAR 59:010
2.	EP 05 Acid wash and Chrome Acid Rinse Capacity-30 tons/hr coated coil	NA
3.	EP 06 Chrome Coat Application and Chemical Coat Dryer	NA
4.	EP 07 Chemical Coat Cooler	NA
5.	EP 20 Welding unit for steel coil Capacity-30 tons/hr coated coil	401 KAR 59:010
6.	Hasting Space Heater #1, #2, & #3 3 MMBTU/hr each	Less than 5 ton/yr emission
7.	McQuay Space Heater #1, #2, & #3 3 MMBTU/hr each	Less than 5 ton/yr emission
8.	Ind. Air System BPS Heater 2.22 MMBTU/hr	Less than 5 ton/yr emission
9.	EP 30 QA/QC Laboratory Paint Testing	NA
10.	EP 12-19 Tote Breathing Loss	NA

**Permit Number:** <u>V-07-004</u> **Page:** 24 of 41

### SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

Volatile organic compound (VOC) emissions shall be less than or equal to 225 tons per rolling 12-month period.

#### **Compliance Demonstration Method:**

Compliance shall be demonstrated by a material balance method consisting of record keeping of coatings and solvent utilized, VOC content and resulting emissions, which will be summarized on a monthly basis. The equation for monthly record keeping is as follows:

 $P_m = \{ \sum (i = 1...j) \ U_i \ (gal \ /month) \ x \ D_i \ (lbs \ VOC \ /gal) / \ 2000 \} \{ 1 - DRE x \ CE \}$ 

Where  $P_m$  equals current monthly VOC emissions in tons and the summation of VOC emissions is over the number of coatings j applied on each affected facility during the month. Here  $U_i$  is the volume (gal/month) used and  $D_i$  is the corresponding VOC content (lbs/gal) for each respective coating.

DRE=organic volatile matter destruction or removal efficiency of control device, percent. CE=organic volatile matter capture efficiency of the capture system for work station, percent.

The 12-month rolling average of VOC inputs is calculated as follows:  $P_a = P_m$  (current month) +  $P_m$  (preceding 11 months) Where  $P_a$  equals VOC inputs over the last 12 month period.

**Permit Number:** <u>V-07-004</u> **Page:** 25 of 41

#### **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

Permit Number: V-07-004 Page: 26 of 41

### SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b-IV-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:

- a. Date, place as defined in this permit, and time of sampling or measurements;
- b. Analyses performance dates;
- c. Company or entity that performed analyses;
- d. Analytical techniques or methods used;
- e. Analyses results; and
- f. Operating conditions during time of sampling or measurement.
- 2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b-IV-2 and 1a-8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
  - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
  - b. To access and copy any records required by the permit:
  - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours; or during an emergency.

- 4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
- 5. Summary reports of any monitoring required by this permit shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Sections 1b-V-1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

**Permit Number:** <u>V-07-004</u> **Page:** 27 of 41

### SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- 6. The semi-annual reports are due by January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. If continuous emission and opacity monitors are required by regulation or this permit, data shall be reported in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All deviations from permit requirements shall be clearly identified in the reports.
- 7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
  - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
- 8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7 above) to the Regional Office listed on the front of this permit within 30 days. Deviations from permit requirements, including those previously reported under F.7 above, shall be included in the semiannual report required by F.6 [Sections 1b-V, 3 and 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- 9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
  - a. Identification of the term or condition;
  - b. Compliance status of each term or condition of the permit;
  - c. Whether compliance was continuous or intermittent;
  - d. The method used for determining the compliance status for the source, currently and over the reporting period.
  - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

**Permit Number:** <u>V-07-004</u> **Page:** 28 of 41

### SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications shall be mailed to the following addresses:

Division for Air Quality Owensboro Regional Office 3032 Alvey Park Dr. W., Suite 700 Owensboro, KY 42303 U.S. EPA Region 4 Air Enforcement Branch Atlanta Federal Center 61 Forsyth St. Atlanta, GA 30303-8960

Division for Air Quality Central Files 803 Schenkel Lane Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

**Permit Number:** <u>V-07-004</u> **Page:** 29 of 41

#### **SECTION G - GENERAL PROVISIONS**

#### 1. General Compliance Requirements

a. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 Section 3(1)(b) and a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act). Noncompliance with this permit is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a-3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

- b. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a-6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- c. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - (1) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
  - (2) The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - (3) The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
  - (4) New requirements become applicable to a source subject to the Acid Rain Program.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

- d. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Sections 1a- 7 and 8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- e. Emission units described in this permit shall demonstrate compliance with applicable requirements if requested by the Division [401 KAR 52:020 Section 3(1)(c)].

**Permit Number:** <u>V-07-004</u> **Page:** 30 of 41

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

f. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

- g. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a-14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- h. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a-4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- i. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens. [Section 1a-15-b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- j. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a-10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- k. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
- 1. This permit does not convey property rights or exclusive privileges [Section 1a-9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
- m. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Cabinet or any other federal, state, or local agency.
- n. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
- o. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

**Permit Number:** <u>V-07-004</u> **Page:** 31 of 41

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

p. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

- q. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of permit issuance. Compliance with the conditions of this permit shall be considered compliance with:
  - (1) Applicable requirements that are included and specifically identified in the permit and
  - (2) Non-applicable requirements expressly identified in this permit.

#### 2. Permit Expiration and Reapplication Requirements

- a. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
- b. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

#### 3. Permit Revisions

- a. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
- b. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

#### 4. Construction, Start-Up, and Initial Compliance Demonstration Requirements

No construction authorized by this permit.

**Permit Number:** <u>V-07-004</u> **Page:** 32 of 41

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

#### 5. <u>Testing Requirements</u>

a. Pursuant to 401 KAR 50:045 Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

- b. Pursuant to 401 KAR 50:045 Section 5, in order to demonstrate that a source is capable of complying with a standard at all times, any required performance test shall be conducted under normal conditions that are representative of the source's operations and create the highest rate of emissions. If the maximum production rate represents a source's highest emissions rate and a performance test is conducted at less than the maximum production rate, a source shall be limited to a production rate of no greater than 110 percent of the average production rate during the performance tests. If and when the facility is capable of operation at the rate specified in the application, the source may retest to demonstrate compliance at the new production rate. The Division for Air Quality may waive these requirements on a case-by-case basis if the source demonstrates to the Division's satisfaction that the source is in compliance with all applicable requirements.
- c. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

#### 6. Acid Rain Program Requirements

- a. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
- b. The permittee shall comply with all applicable requirements and conditions of the Acid Rain Permit and the Phase II permit application (including the Phase II NOx compliance plan and averaging plan, if applicable) incorporated into the Title V permit issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

#### 7. Emergency Provisions

- a. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
  - (1) An emergency occurred and the permittee can identify the cause of the emergency;

**Permit Number:** <u>V-07-004</u> **Page:** 33 of 41

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

(2) The permitted facility was at the time being properly operated;

- (3) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
- (4) Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
- (5) This requirement does not relieve the source of other local, state or federal notification requirements.
- b. Emergency conditions listed in General Condition G.7.a above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
- c. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

#### 8. Ozone Depleting Substances

- a. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - (1) Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - (2) Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - (3) Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - (4) Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - (5) Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - (6) Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
- b. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

**Permit Number:** <u>V-07-004</u> **Page:** 34 of 41

#### **SECTION G - GENERAL PROVISIONS (CONTINUED)**

#### 9. Risk Management Provisions

a. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center P.O. Box 1515 Lanham-Seabrook, MD 20703-1515.

b. If requested, submit additional relevant information to the Division or the U.S. EPA.

**Permit Number:** <u>V-07-004</u> **Page:** 35 of 41

#### SECTION H - ALTERNATE OPERATING SCENARIOS

#### **NESHAP Requirements**

#### **EP 10** Coil Coating Line

EU 18	Prime Coat Application Room,
EU 19a	Finish Coat Application Room #1
EU 19b	Finish Coat Application Room #2
EU 20	Prime Coat Drying Oven,
EU 21	Finish Coat Drying Oven.

#### **Applicable Regulation:**

401 KAR 63:002 and by incorporation, 40 CFR 63 Subpart SSSS, National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Coil. The provisions of this subpart apply to each facility that is a major source of HAP, at which a coil coating line is operated. *Coil coating line* means a process and the collection of equipment used to apply an organic coating to the surface of metal coil. A coil coating line includes a web unwind or feed section, a series of one or more work stations, any associated curing oven, wet section, and quench station. A coil coating line does not include ancillary operations such as mixing/thinning, cleaning, wastewater treatment, and storage of coating material. Roll Coater is an existing affected source because the construction of the source commenced before July 18, 2000.

#### 1. **Operating Limitations**

None

#### 2. <u>Emission Limitations</u> §63.5120 Emission standards

No more than 0.046 kilogram (kg) of organic HAP per liter of solids applied during each 12-month compliance period.

#### 3. <u>Testing/Compliance Demonstration Requirements</u> §63.5160 Performance tests

Table 1 to §63.5160—Required Performance Testing Summary

If you control HAP on your coil coating line by:	You must:
Volatile matter	Determine the HAP or volatile matter and solids content of coating materials according to the procedures in (a) and (b) in this section.

(a) Organic HAP content. You must determine the organic HAP weight fraction of each coating material applied by following one of the procedures in paragraphs (b)(1) through (4) of this section:

**Permit Number:** <u>V-07-004</u> **Page:** 36 of 41

#### **SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)**

(1) *Method 311*. You may test the material in accordance with Method 311 of appendix A of this part. The Method 311 determination may be performed by the manufacturer of the material and the results provided to you. The organic HAP content must be calculated according to the criteria and procedures in paragraphs (b)(1)(i) through (iii) of this section.

- (i) Count only those organic HAP that are measured to be present at greater than or equal to 0.1 weight percent for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and greater than or equal to 1.0 weight percent for other organic HAP compounds.
- (ii) Express the weight fraction of each organic HAP you count according to paragraph (b)(1)(i) of this section as a value truncated to four places after the decimal point (for example, 0.3791).
- (iii) Calculate the total weight fraction of organic HAP in the tested material by summing the counted individual organic HAP weight fractions and truncating the result to three places after the decimal point (for example, 0.763).
- (2) *Method 24*. For coatings, you may determine the total volatile matter content as weight fraction of nonaqueous volatile matter and use it as a substitute for organic HAP, using Method 24 of 40 CFR part 60, appendix A. The Method 24 determination may be performed by the manufacturer of the coating and the results provided to you.
- (3) Alternative method. You may use an alternative test method for determining the organic HAP weight fraction once the Administrator has approved it. You must follow the procedure in §63.7(f) to submit an alternative test method for approval.
- (4) Formulation data. You may use formulation data provided that the information represents each organic HAP present at a level equal to or greater than 0.1 percent for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and equal to or greater than 1.0 percent for other organic HAP compounds in any raw material used, weighted by the mass fraction of each raw material used in the material. Formulation data may be provided to you by the manufacturer of the coating material. In the event of any inconsistency between test data obtained with the test methods specified in paragraphs (b)(1) through (3) of this section and formulation data, the test data will govern.
- (b) *Solids content.* You must determine the solids content of each coating material applied. You may determine the volume solids content using ASTM D2697–86 (Reapproved 1998) or ASTM D6093–97 (incorporated by reference, see §63.14), or an EPA approved alternative method. The ASTM D2697–86 (Reapproved 1998) or ASTM D6093–97 determination may be performed by the manufacturer of the material and the results provided to you. Alternatively, you may rely on formulation data provided by material providers to determine the volume solids.

#### §63.5170 Compliance Demonstration with the standards

You must include all coating materials (as defined in §63.5110) used in the affected source when determining compliance with the applicable emission limit in §63.5120. To make this determination, you must use at least one of the four compliance options listed

**Permit Number:** <u>V-07-004</u> **Page:** 37 of 41

#### **SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)**

in Table 1 of this section. You may apply any of the compliance options to an individual coil coating line, or to multiple lines as a group, or to the entire affected source. You may use different compliance options for different coil coating lines, or at different times on the same line. However, you may not use different compliance options at the same time on the same coil coating line. If you switch between compliance options for any coil coating line or group of lines, you must document this switch as required by §63.5190(a), and you must report it in the next semiannual compliance report required in §63.5180.

Table 1 to §63.5170—Compliance Demonstration Requirements Index

If you choose to demonstrate compliance by:	Then you must demonstrate that:
murchaced"	a. Each coating material used during the 12-month compliance period does not exceed 0.046 kg HAP per liter solids, as purchased. Paragraph (a) of this section.
applied"	a. Each coating material used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. Paragraphs (b)(1) of this section; or
	b. Average of all coating materials used does not exceed 0.046 kg HAP per liter solids on a rolling 12-month average as applied basis, determined monthly. Paragraph (b)(2) of this section.

- (a) As-purchased compliant coatings. If you elect to use coatings that individually meet the organic HAP emission limit in Sec. 63.5120(a)(2) as-purchased, to which you will not add HAP during distribution or application, you must demonstrate that each coating applied during the 12-month compliance period contains no more than 0.046 kg HAP per liter of solids on an as-purchased basis.
  - (1) Determine the organic HAP content for each coating material and the volume solids content.
  - (2) Combine these results using Equation 1 of this section and compare the result to the organic HAP emission limit to demonstrate that each coating material contains no more organic HAP than the limit.

$$H_{siap} = \frac{C_{hi}D_i}{V_{si}}$$
 Equation 1

Where:

 $H_{siap}$  = as-purchased, organic HAP to solids ratio of coating material, i, kg organic HAP/liter solids applied.

C<sub>hi</sub> = organic HAP content of coating material, i, expressed as a weight-fraction, kg/kg.

 $D_i$  = density of coating material, i, kg/l.

 $V_{si}$  = volume fraction of solids in coating, i, 1/1.

**Permit Number:** <u>V-07-004</u> **Page:** 38 of 41

#### **SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)**

(b) As-applied compliant coatings. If you choose to use `as-applied" compliant coatings, you must demonstrate that the average of each coating material applied during the 12-month compliance period contains no more than 0.046 kg of organic HAP per liter of solids applied in accordance with (b)(1) of this section, or demonstrate that the average of all coating materials applied during the 12-month compliance period contain no more than 0.046 kg of organic HAP per liter of solids applied in accordance with paragraph (b)(2) of this section.

(1) To demonstrate that the average organic HAP content on the basis of solids applied for each coating material applied, H<sub>Si yr</sub>, is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 2 of this section:

$$H_{siy} = \frac{\sum_{y=1}^{12} \left[ V_i D_i C_{ahi} + \sum_{i=1}^{q} V_j D_j C_{hij} \right]}{\sum_{y=1}^{12} \left[ V_i V_{si} \right]}$$
 Equation 2

Where:

 $H_{si\ yr}$  = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of material, i, kg organic HAP/liter solids applied.

 $V_i$  = volume of coating material, i, l.

 $D_i$  = density of coating material, i, kg/l.

 $C_{ahi}$  = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.

 $V_j$  = volume of solvent, j, l.

 $D_i$  = density of solvent, j, kg/l.

 $C_{hij}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

 $V_{si}$  = volume fraction of solids in coating, i, 1/1.

y = identifier for months.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

(2) To demonstree that the average organic HAP content on the basis of solids applied, H<sub>S yr</sub>, of all coating materials applied is less than 0.046 kg HAP per liter solids applied for the 12-month compliance period, use Equation 3 of this section:

$$H_{syr} = \frac{\sum_{y=1}^{12} \left[ \sum_{i=1}^{p} V_i D_i C_{ahi} + \sum_{j=1}^{q} V_j D_j C_{hij} \right]}{\sum_{y=1}^{12} \left[ \sum_{i=1}^{p} V_i V_{si} \right]}$$
Equation 3

Permit Number: V-07-004 Page: 39 of 41

#### SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

#### Where:

 $H_{S yr}$  = average for the 12-month compliance period, as-applied, organic HAP to solids ratio of all materials applied, kg organic HAP/liter solids applied.

 $V_i$  = volume of coating material, i, l.

 $D_i$  = density of coating material, i, kg/l.

C<sub>ahi</sub> = monthly average, as-applied, organic HAP content of solids-containing coating material, i, expressed as a weight fraction, kilogram (kg)/kg.

 $V_i$  = volume of solvent, j, l.

 $D_i$  = density of solvent, j, kg/l.

 $C_{hij}$  = organic HAP content of solvent, j, added to coating material, i, expressed as a weight fraction, kg/kg.

 $V_{si}$  = volume fraction of solids in coating, i, 1/1.

p = number of different coating materials applied in a month.

q = number of different solvents, thinners, reducers, diluents, or other non-solids-containing coating materials applied in a month.

y = identifier for months.

#### 4. **Specific Recordkeeping Requirements**

#### §63.5190 Record keeping

- (a) You must maintain the records specified in the following paragraphs:
  - (1) Records of the coating lines on which you used each compliance option and the time periods (beginning and ending dates and times) you used each option.
  - (2) Records specified in §63.10(b)(2) of all measurements needed to demonstrate compliance with this subpart, including:
    - (iii) Organic HAP content data for the purpose of demonstrating compliance.
    - (iv) Volatile matter and solids content data for the purpose of demonstrating compliance.
    - (vi) Material usage, HAP usage, volatile matter usage, and solids usage and compliance demonstrations using these data.

#### 6. Specific Reporting Requirements

#### §63.5180 Reports requirements

- (a) You must submit a Notification of Compliance Status as specified in Sec. 63.9(h). You must submit the Notification of Compliance Status no later than 30 calendar days following the end of the initial 12-month compliance period described in Sec. 63.5130.
- (b) You must submit semi-annual compliance reports containing the information specified in the following paragraphs:
  - (1) Compliance report dates.
    - (i) The first semiannual reporting period begins 1 day after the end of the initial compliance period and ends 6 months later.

Permit Number: V-07-004 Page: 40 of 41

#### SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

(ii) The first semiannual compliance report must cover the first semiannual reporting period and be postmarked or delivered no later than 30 days after the reporting period ends.

- (iii) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.
- (iv) Each subsequent compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (2) The semi-annual compliance report must contain the following information:
  - (i) Company name and address.
  - (ii) Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report.
  - (iii) Date of report and beginning and ending dates of the reporting period. The reporting period is the 6-month period ending on June 30 or December 31. Note that the information reported for each of the 6 months in the reporting period will be based on the last 12 months of data prior to the date of each monthly calculation.
  - (iv) Identification of the compliance option or options specified in Table 1 to Sec. 63.5170 that you used on each coating operation during the reporting period. If you switched between compliance options during the reporting period, you must report the beginning dates you used each option.
- (c) You must submit, for each deviation occurring at an affected source, the semi-annual compliance report.

**Permit Number:** <u>V-07-004</u> **Page:** 41 of 41

### **SECTION I - COMPLIANCE SCHEDULE**

None